

**ABSTRACT**

The invention provides a stable ectoparasiticial aqueous suspension formulation of a spinosyn, comprising the spinosyn, or a physiologically acceptable derivative or salt thereof, milled to an average particle size of 1 to 15 microns, a surfactant in an amount effective to facilitate wetting the milled particles; a dispersant in an amount that forms a spinosyn;dispersant weight ration of from 3:1 to 1:5; and water. It also provides a method of controlling an ectoparasite infestation on a small ruminant or companion animal comprising administering an effective amount of such an aqueous suspension formulation.